

## **Panel Discussion: Staff and User Technical Training**

The issue of **training end-users** and center staff in the **effective utilization** of Cray Research computers is a **constant**, on-going process at **most all sites**. **Problems** such as **training materials**, **class frequency**, **videos**, and **site-specific information** are **very important** components in this area. **Panel members will offer** a varied approach to technical training, and **CRI will present** possible solutions as well. The **audience will be encouraged to participate** by asking questions and sharing experiences and suggestions.

**Panel Member:** Barbara Horner- Miller  
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Pasadena, California

### **Outline of Assumed Comments Based on Abstract:**

JPL does not have **adequate training credits** under current contract with Cray Research, Inc. (CRI) to hire them to teach classes in the Pasadena area. The current number of training credits given were 50. Under terms of the Y-MP2I contract, local classes must be 5 days in duration and have a minimum of 10 students. Thus one class in Pasadena uses all training credits received under the contract. Nor is there **adequate training funding** available to pay Cray to teach a local class, given the charges of \$200/day/student.

CRI training credits are used to send User Support staff to the Eagan training site for classes. In the past our philosophy has been to send only one person per class (except for the System Administration class where we sent two), this allowed us to get the most varied knowledge from our training credits and, as it turned out, we were able to accommodate the personal requests of the staff under this policy.

CRI Classes attended in the last 16 months: UNICOS System Administration; UNICOS System Installation and Tuning; System Support Tools; CF 77 Parallel Processing; Advanced CF 77 Features and Optimization; CF 77 and Standard C Features and Optimization; UNICOS Functional Overview. We have ordered and begun viewing UNICOS 4.0 training tapes (entire group).

All consultants will take MPP emulator training in next 6 months since we will be in Center of Excellence agreement. 1 has to date.

User training is done in-house or under contract with SDSC. SDSC offers two classes currently to our users: Introduction to UNICOS (very infrequently) and Fortran Vectorization and Optimization (3 to 4 times/year). Each is a full day class given in a PC or Macintosh class room (12 "terminals" + 1 with overhead display for the instructor). We have requested an autotasking/microtasking class from SDSC and they are considering the request. We may offer the UNICOS 4.0 training tapes to users depending on evaluation by User Support staff. We are considering requesting GSFC or NAS to present a class of interest to our users on their systems this year.

Walt Brainerd gave 4 seminars on Fortran 90 in a single day last month: Overview of Fortran 90; Array Processing; Modules; Pointers. He may be invited back later for hands-on classes of 4-day duration. We are waiting until CRI has its Fortran 90 compiler available or close.

Other "user training": Seminar series on work done elsewhere on supercomputers. 4-6/year